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ABSTRACT

Experiences in teaching a research methods course to Master of Library Science students at the University of Ibadan (Nigeria) are reported. Outlined are somewhat controversial teaching and learning considerations, based on the broad objectives and content of the research methods course taught in Ibadan's library school since 1977. These considerations include: (1) inculcating in students the main ingredients of the research process; (2) ensuring that students attain a certain level of numeracy; (3) exploring the advantages of team teaching; (4) availability and currency of appropriate resources; and (5) insuring effective evaluation of students' understanding of the course. It is suggested that alternative approaches to the lecture in teaching the course should be encouraged. Perennial areas of frustration are highlighted and discussed. In the final section, proposals are made that are aimed at ameliorating the endemic book famine in Third World countries and making the research methods course the modest beginning of a "research for development crusade." Three annexes are appended: the general course outline of Research Methods in Librarianship; statistical analysis and presentation; and the grading scheme for projects in this course. (16 references) (CGD)

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TEACHING RESEARCH METHODS TO POTENTIAL GRADUATE LIBRARIANS

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Teaching Research Methods to Potential Graduate Librarians

Abstract

Rationalizing the Research Methods course in a postgraduate programme which is not necessarily based on a bachelor's degree in the same discipline as the field of postgraduate study poses certain difficulties and challenges which are best addressed in the context of the specific guidelines and regulations of a postgraduate school. The broad objectives and content of the Research Methods course, as taught in Ibadan's library school since 1977, constitute the basis for discussing some important teaching and learning considerations, such as: inculcating in students the main ingredients of the research process; ensuring that students attain a certain level of numeracy; exploring the advantages of team teaching; availability and currency of appropriate resources; and ensuring effective evaluation of students' understanding of the course. It is suggested that alternative approaches to the lecture in teaching the course should be encouraged; and perennial areas of frustration are highlighted and discussed. Finally, proposals aimed at ameliorating the endemic book famine in Third World countries and making the Research Methods course the modest beginning of a 'Research for Development Crusade' are made to IFLA.

Teaching Research Methods to Potential Graduate Librarians

by

W. Ọlabọde Aiyepẹku

I. Preamble

IT IS always a privilege and a pleasure to be given the opportunity of not only participating at important international meetings such as the present one, but also to be asked to write a paper on a subject that is very dear to my heart. I come from a department which shares a strong commitment to the ideals of harmonization. Two of my colleagues in the department had participated actively at previous harmonization conferences organized jointly or severally by ICA, Unesco, FID and IFLA. I was myself a participant at the Unesco-sponsored International Symposium on the Harmonization of Education and Training Programmes in Information Science, Librarianship and Archival Studies held in Paris in October 1984. Shortly afterwards, I shared my thoughts on aspects of the subject with my colleagues at Ibadan at a seminar devoted to defining a functional identity for the information professions (Aiyepeku, 1985). My department has just successfully harmonized the existing Master in Library Studies (MLS) degree programme with the proposed master's programmes in information science and archival studies. Finally, the name of my department was broadened last year to accord formal recognition to courses in the three interrelated information disciplines which have featured in the department's training programmes for over a decade.

The present Colloquium offers me a valued opportunity to share of my experiences in teaching the Research Methods course to MLS students since 1977 with a truly distinguished, international group of information professionals. I consider

my paper an important aspect of a much wider subject discussed at a recent workshop in Nairobi, Kenya (IDRC, 1987). On that occasion, I had the honour of addressing the fundamental issue of human resource development as it related to African information professionals (Aiyepeku, 1987). Human resources constitute by far the most valuable asset of any profession and too much resources can never be devoted to developing them. It is therefore reassuring to observe the increasing attention of international organizations and development agencies to the challenges of human resource development for the information professions in the Third World generally, and in Africa in particular. IFLA has, of course, always been among the leaders in the moving frontier of study, adaptation and renewal to ensure that professional education continues to be socially relevant and effective.

Finally, in these introductory remarks, it is worth noting that my task does not include making a case for a Research Methods course in master's level curricula for librarianship. Such a case has been powerfully and persuasively made by such eminent educators and writers as Reece (1936) and Shera (1972), among several others. The seven sub-topics discussed in this paper do not, of course, exhaust the subject. Fortunately, the expected inputs from participants at this session of the Colloquium will no doubt reflect a richness of diversity of experiences that should enhance our collective understanding and appreciation of the issues involved as a basis for future action.

II. Rationalizing the Research Methods Course

Students of librarianship at Ibadan usually react with varying degrees of incredulity when, at the outset of their postgraduate professional training to obtain the MLS degree, they are asked to register for a Research Methods course which is not only compulsory, but runs throughout the duration of their

one-calendar year programme. It is perhaps understandable that MLS students should react in this way. Most of them come into the programme with bachelor's degrees in disciplines outside the information professions of librarianship, archival studies and information science. How could any library school (reasonably) expect such students to begin their programme by learning how to do research in a discipline they know little or nothing about? This is an important question whose legitimacy must be recognized with a view to providing a convincing answer to it.

It is generally easier to address the question in a university with a postgraduate school than in one without. For example, it is much easier to rationalize the teaching of a Research Methods course in the MLS programme at the University of Ibadan, where a postgraduate school was established in 1975, than at, say, Ahmadu Bello University in Zaria, northern Nigeria, where an MLS programme is offered without a postgraduate school. The postgraduate school at Ibadan derives its powers from Senate

> to deliberate and take final decisions on all postgraduate affairs, except new regulations and the results of higher degree and postgraduate diploma and certificate examinations and report such action to Senate for ratification only. (Unibadan, 1979).

Consequently, Ibadan's postgraduate school stipulated that all one-calendar year academic degrees of Master must offer a compulsory Research Methods course. Incidentally, Ibadan's MLS degree programme enjoys the dubious distinction of being the only one classified as both an academic and a professional programme!

Not many people will quarrel with the reasoning of the postgraduate school at Ibadan that all higher degree students must take and pass a Research Methods course in their areas

of specialization. However, such a position does seem untenable in a higher degree programme, such as the MLS, that is not necessarily built on a bachelor's degree in the same discipline. A more persuasive argument would have to be found to convince students that an academic MLS degree programme should not be excluded from the Research Methods course. In addressing the issue, the present speaker has always found it helpful to demonstrate that, at the higher degree level, irrespective of whether the reference subject is new or the same as the subject of the bachelor's degree, the emphasis is invariably on inculcating the thinking habit in students as a basis for sharpening their rationalization process. In a rather oversimplified but helpful manner, the distinction is made between emphasizing the 'what?', 'which?', 'who?', 'when?', and 'how?' of learning at the undergraduate level and the increasing emphasis on the 'why?' of learning at the master's level and beyond.

The transition process from undergraduate to postgraduate study is a real and sharp one; teachers can help students make it less traumatic than is often the case by the way they break students gradually into the demands of postgraduate study via the Research Methods route. Once again, the teacher's efforts will have greater impact in the context of a postgraduate school which spells out admission requirements, course regulations and examination guidelines, qualifications of teaching staff, etc., than in an environment in which each higher degree programme has to formulate and apply its own rules and regulations.

Experience has shown, however, that the teacher's emphasis on the 'whys?' of graduate study does not gurantee that MLS students will enthusiastically embrace the Research Methods course in their usually crowded programme. It is

also necessary to convince them that the teaching of the course should come at the beginning, not the end, of their programme. My approach in this regard has been to make students appreciate three interrelated facets of the issue:

(1) That since graduate study is designed primarily to inculcate the thinking and rationalization process in students, the process must cut across all courses offered in the programme;

(2) That the application of the thinking and rationalization process must be deliberate in every other course in the programme; and

(3) That because it is not necessary to teach or learn the Research Methods course from the vantage point of a particular discipline, a bachelor's degree in librarianship does not confer special advantages on the MLS student.

Participants at this Colloquium will no doubt reflect on their varying experiences as they comment on the rather controversial issues raised in this section of my paper.

III. Inculcating the Main Ingredients of the Research Process

It is doubtful if we can, or indeed should, have a consensus of what constitutes the components of the Research Methods course in an MLS degree programme. Local considerations, such as the duration of the programme, the preferences of teachers, and the resources available, will have considerable effects on the mix that a particular programme adopts. The teacher, no less than the student, must however be firmly convinced that researchers are born as well as made, and that a well designed and carefully taught Research Methods course can indeed contribute substantially towards the production of a first class researcher in the information disciplines.

Annexes A and B describe the components of the course as taught at the University of Ibadan during the 1986/87 session which has just ended. While all aspects of the two course

outlines may be of interest to participants at this Colloquium, this section of my paper will discuss only two important aspects: the objectives of the course and the relevance/comprehensiveness of the topics included in the outlines. The other aspects will be discussed later on in the paper.

The broad objective of the course: "to inculcate in students a clear understanding of what is and what is not research, and the ability to do a small piece of original study at the end of the course" is necessarily a modest one. The student will neither become a "researcher" nor will his project be expected to qualify strictly as 'research' at the end of his course. Rather, he would have learnt how to engage in independent study with a certain degree of confidence. The student would also have been helped to develop a positively critical faculty as he reads the professional literature of librarianship and related disciplines. So many publications in the information professions masquerade as research that it is vitally important to teach students how to separate the grains from the chaff.

The broad objective of the 'Statistical Analysis and Presentation' component of the course (Annex B) is essentially pragmatic. The hope is that students will master elementary statistical techniques and be capable of applying them, first in their projects and, later, in their research as qualified librarians. It is, of course, a matter for debate whether or not the little they are taught is enough to enable them "achieve a basic level of numeracy ..." Perhaps even more important than what students are able to learn in this aspect of the course is the teacher's emphasis on how, when and why the librarian needs to seek the assistance of statisticians and computer specialists in his research endeavours. This emphasis runs throughout the course and it is designed partly to ensure a certain degree of balance in teaching a severely restricted version of a "Basic

Statistics for Librarians" course as it was recommended by a librarian (Simpson, 1975) or as adopted from "A Short Course in the Elements of Statistical Methods" recommended by two statisticians (Snedecor and Cochran, 1967).

The course content has not always comprised the elements shown in Annexes A and B. Continuous experimentation and changes have taken place over the years aimed at identifying those aspects of the research process which were considered most useful in the investigation of local library and information issues. For example, in teaching 'Data-collection Methods', far more emphasis is now put on observation, interview and questionnaire surveys than on, say, experimental and operational research techniques. In addition, experience has shown that most of our students at Ibadan have had serious difficulties in their assimilation of the principles of 'probability' and 'regression', even in the simplified form in which Simpson (1975) treated the topics. Moreover, the application of such analytic techniques as probability and regression has been a rarity in students' projects and indeed in the professional literature. Our observation is that their elimination from the course in the last three sessions has neither hurt nor benefited the students. However, the teacher has since been spared the trauma of trying, in vain, to demonstrate the potential value of the two statistical techniques in serious research work.

IV. Ensuring a Basic Level of Numeracy

How much statistics does the graduate librarian need to know? Not too long ago, many respected educationists in our discipline would have given a categorical "None" as their answer to this question. Today, it is doubtful if anyone will seriously question the relevance and validity of statistical analysis and presentation in a Research Methods course for potential graduate librarians. The present situation is the direct consequence of the phenomenal growth in the application

of statistical techniques in social science research during the last 25 years or so. Since librarianship is essentially a social science discipline, it cannot be expected to remain insulated from such fundamental and exciting developments. Fortunately, it has not although serious doubts remain as regards how far we should go in ensuring that graduate librarians acquire a "basic level of numeracy" as a necessary component of their professional education.

The controversy usually resolves around two interrelated issues. Must the trainee librarian learn 'Basic Statistics' with examples drawn from as many social science disciplines as possible, including librarianship? Or, must 'Basic Statistics' be taught à la Simpson (1975) with examples drawn exclusively from indexing and abstracting services? The second point of controversy is usually about who is best suited to teach this aspect of the course, a statistician or an appropriately qualified librarian? We shall consider the second point first.

Experience at Ibadan has shown that a statistician, even a social science-oriented one, who has no training in librarianship or archival studies or information science, tends to teach 'Basic Statistics' with a bias that is not very helpful to trainee librarians. Efforts aimed at improving the situation by suggesting to the teacher a few examples from the field of librarianship have not always produced the desired results. Eventually, we had to insist that the teacher come from among the academic staff of the department, and that was how I have found myself covering all aspects of Annex B since the 1977/78 session in roughly fifteen hours of lectures.

The examples in Simpson's (1975) book are simple, clear and highly relevant to the information disciplines. However, they do have a narrow range and are, consequently, boring. The present speaker holds the view that the statistics component of the Research Methods course must expose the student to other types of social science statistics in addition to the appropriate emphasis on statistics derived from the information disciplines. I have always found it necessary to supplement Simpson's examples with real or imaginary ones drawn from the local environment. Since the orientation of a first professional training programme must necessarily be broad-based, it is vital to give librarianship students various examples of social science statistics, and then demonstrate how they may be adopted or adapted in specific librarianship studies. We have been able to achieve this objective at Ibadan due to the publication of an excellent book, Statistics for Beginners (Adamu and Johnson, 1974) whose principal author used to handle the statistics component of our Research Methods course. The value of the book is further enhanced for our type of students because it contains numerous worked examples as well as exercises whose answers are also provided at the end of the book. We remain convinced that fifteen hours of lectures, based on most of Simpson's (1975), as well as aspects of the book by Adamu and Johnson (1974), and reinforced by occasional examples from the one by Snedecor and Cochran (1967), give our students a reasonably good opportunity of archieving "a basic level of numeracy ..." by the end of the course.

V. Exploring the Advantages of Team Teaching

A major objective of the international meeting at which this paper is being presented is the harmonization of the education and training programmes of library, information and archival

personnel. It is appropriate, therefore, to examine how experts in the three interrelated areas could collaborate in teaching the Research Methods course.

Simultaneously with Ibadan's decision, taken in the 1978/79 session, that all aspects of the course would be taught by staff of the Department of Library Studies, it was also decided that, as much as possible, the advantages of team teaching would be fully explored. At first, it was impossible to find a qualified archivist on the staff to teach at this level. However, with the successful defence of our first, and so far only, doctoral dissertation in archival studies in 1983, we now have a three-man team of specialists in information science, librarianship and archival studies respectively which handles all aspects of the course.

An examination of Annex A shows that approximately 70 percent of the entire course content is taught by the present speaker whose specialization is information science; about 20 percent is covered by Dr Nzotta, a senior lecturer who specializes in librarianship; and roughly 10 percent of the course content is taken by Dr Alegbeleye, a lecturer whose specialty is archival studies. On the surface, therefore, it would appear that the teaching of the course is heavily biased in favour of information science and librarianship. To some extent, such an observation would be correct, but the situation is probably also a reflection of the relative strengths of research output in the three interrelated disciplines. It should also be borne in mind that four key aspects of the course (sections I, II, III and most of V in Annex A) can hardly be taught with any appreciable degree of bias. Our experience at Ibadan over the years is that the broad-based orientation of the course has remained virtually unchanged, irrespective of the specialities of the teachers handling its content, and appropriate examples have continued to be used from all three areas of the information disciplines.

Team teaching can be given great impetus in the process of helping students to select the best data-collection methods for their projects, and particularly during the supervision of those projects. The occasional bias in the choice of examples as three teachers, with different but related specializations, illustrate their teaching from their research and publication experiences should be wiped out as all three come together to offer collective advice to all students on how to select the best data-collection methods for specific topics of research. Unfortunately, such sessions can never last long enough to give individual attention to students' questions that usually cut across the three information disciplines. Students invariably have had to wait to put most of their unresolved questions to their supervisors.

The full advantages of team teaching can indeed be explored in the allocation of supervisors for students' independent projects. At Ibadan, all teachers who are qualified to supervise at this level participate in the exercise. Each student is asked to submit two topics, one of which is preferred as the focus of his independent study. All of the teachers meet the students together; each student's topics are discussed and a selection of one topic mutually agreed by the student and the teachers is made. The student is then assigned a supervisor whose speciality is the same as, or as close as possible to, the area of the student's independent study. Thereafter, the supervisor assumes full authority and responsibility for the direction and outcome of the student's work. In practice, however, most students seek and receive help from other members of the teaching staff.

The derivation of a grading scheme for students' independent projects is clearly another area that could benefit from team approach. The scheme shown in Annex C was the result of many hours of discussion and compromise among the teachers who handled the teaching and supervision of the Research

Methods course at Ibadan last session. In particular, agreement on the actual weighting given to each component required considerable persuasion and a genuine spirit of give-and-take. The evidence is strong at Ibadan that the result of such collective effort is more satisfactory than what would have resulted from the efforts of, say, the three teachers who handled the teaching aspect of the course. This speaker is of the view that there is much to commend this approach to all schools of library, archival and information studies.

VI. Resources and Evaluation Methods

Teaching a Research Methods course to potential graduate librarians could be frustrating in a developing country where the appropriate resources are often short or outdated or non-existent. The 'book famine' in many Third World countries can hardly be imagined by residents in industrialized countries who have grown accustomed to buying the books they need across the counter or through the mail. The foreign exchange crunch and the poor state of indigenous publishing in most of the countries have exacerbated an already untenable situation of heavy dependency on foreign sources for tertiary books. Many Third World libraries, including those based in research and academic institutions, will atrophy and die in a few years if urgent and drastic action is not taken to arrest their rapid decline (Banjo, 1987).

It is against this depressing background that one must consider the book resources in support of the Research Methods course in developing countries as typified by those listed in Annexes A and B. The three most important books in Annex A (Goldhor's, Moore's and Simpson's) have all been published in later editions that are not available at Ibadan; we simply cannot afford the foreign exchange! Indeed, we were able to purchase five copies of the 1983 edition of Nick Moore's book only because an expatriate member of the academic staff at

Ibadan's library school agreed to be reimbursed in local currency for the cost of the copies she bought for the department in London. Only three copies of Simpson's book and two of Goldhor's are available for both students and teachers. Thus, some 40-odd students and their teachers have to struggle every session to use these rare species that are absolutely essential to their understanding and teaching of the course content respectively.

The entry in the Reading List shown in Annex A of a book on English usage requires explanation. English is, of course, the medium of communication at the secondary and tertiary levels of education in Nigeria. However, students' standard of both written and verbal communication in English has fallen so precipitously in Nigeria over the last ten years or so that concerted efforts are being made at all levels to arrest the situation. Every MLS student at Ibadan is required to buy and use this excellent book which, fortunately, was published locally at a price that is easly affordable by all students. It is, of course, not easy to ascertain how many students actually buy the book or use it during their programme. However, a measure of the importance attached to 'Good English' in the teaching and grading of the course at Ibadan is reflected in Annex C. Experience has shown that several developing countries which use English as the medium of instruction at the tertiary level of education need to assess students' competence in written English, even at the master's level.

The procedures adopted for assessing students' comprehension of the Research Methods course is clearly a critical aspect of the overall effectiveness of the course. The present speaker believes and practises occasional tests, sometimes given without prior warning, designed to find out how well students have learnt what they are supposed to learn. The 'Statistical Analysis and Presentation' component (Annex B)

is clearly more suitable for such tests than the other components shown in Annex A. The tests are graded very quickly and discussed with students before the next round of lectures. It is important to keep a record of students' scores in such tests and ensure that the average score of each student constitutes a definite percentage of his overall assessment at the end of the course. Students tend not to take such tests seriously if they know that their overall grades for the course are unaffected by their performance in the tests. In this regard, the University of Ibadan has much to learn from the practice in other universities.

The practice at the University of Ibadan is that the student's project, started three months to the end of his one-calendar year programme, constitutes the sole basis for assessing his comprehension of the Research Methods course taught throughout the previous nine months. As mentioned earlier, the assessment criteria, displayed in Annex C, were agreed by all teachers involved in supervising students' projects after considerable discussion and compromise. Although the exact weighting assigned to each criterion is not shown for reasons of confidentiality, the issue can indeed be discussed profitably at this seminar. Suffice it to state at this juncture that criteria III, IV and V account for 75 percent of the marks assigned to the five groups of criteria shown in the grading scheme. It has been used, unchanged, during the past four sessions.

One important point should be noted before we leave this section of the paper. Every student must know the criteria, but not the weighting, that are used to assess his comprehension of the Research Methods course. It is considered vital that students appreciate that the criteria have been derived logically from the course content and the manner the teachers handled it. Indeed, it is not out of place to encourage students to contribute to the derivation of the criteria shown in Annex C although students at Ibadan have rarely availed

themselves of such opportunity.

VII. Challenges and Prospects

One of the enduring benefits of participating at international meetings on major issues affecting the information professions is the opportunity for sober reflection as a prelude to mapping out new strategies for action. Participants from developing countries at such meetings almost invariably see the issues being discussed rather differently from their colleagues from industrialized countries. Fortunately, there is growing understanding of, and sympathy for, the rather harsh realities of developing countries as reflected in the programmes of international bodies, such as IFLA's. Consequently, the gap between the viewpoints of developed and developing countries should be narrowing and it is my hope that the issues discussed in this and the next section of my paper will be considered sufficiently relevant to our collective resolve to harmonize the education of the information professions to elicit the active contribution of all.

While the content of the Research Methods course may not be expected to differ radically from that discussed in sections II to VI of this paper, the time appears ripe to seriously ponder an alternative approach to teaching it. The lecture, as the most commonly used medium of instruction at the tertiary level of education, has been the object of strong criticism for several decades. An early contributor to the debate was a behavioural scientist who observed that

> A large fraction of all formal education requires that students be in the passive observation mode [i.e. the lecture] for long periods of time and seems to produce numbers of people who have trouble getting out of it again. (Powers, 1973: 220).

Shortly after this observation was published, a professor of library and information science concluded a highly controversial article in the following words:

> Use of lectures in graduate education requires justification; their use should be carefully considered and certainly not automatic. Lecture has had a fair trial; Socrates gave it up millenia ago: it is time for administrators and educators to bury it. (Bernier, 1978: 239).

It is no surprise, therefore, that a number of essentially interactive teaching techniques—buzz sessions, brainstorming, case study, guided interrogation, role playing, seminar simulation, etc, —— are being vigorously championed as 'better' alternatives to the lecture. Participants at this seminar may wish to reflect on the relative effectiveness of the lecture and other teaching techniques in postgraduate education for the information disciplines generally, and for the Research Methods course in particular.

Early in the 1970's an exciting experiment was reported in the literature of information science (Saracevic, 1971) of how an American library school was teaching an "Introduction to Information Science" course to potential graduate librarians. Our main focus of interest in Saracevic's paper is that the course was taught entirely on the basis of a carefully selected list of original research articles on the subject. Students had to read the articles, evaluate and then discuss them with their teacher. I find the following aspect of Saracevic's report particularly fascinating:

> The articles are selected on the basis of reporting original research, or at times on the basis of originally synthesizing a number of works in order to economically illuminate a whole topic. The stress is in providing original report writing written by authors who performed the work. The quality of the work presented in the articles was a major criterion for selection, but by no means was an attempt made to select the "best" articles. Rather, it was attempted to select those articles representative of the work in the field in general, representative of different approaches to, viewpoints of, and attacks on given problem areas, and representative of a variety of backgrounds of workers in the field. (Saracevic, 1971: 155).

Saracevic's evaluation of the novel approach, after a three-year trial period, was that the experience was an unqualified success. I submit that we have everything to gain and nothing to lose at all by giving the approach at least a trial in our teaching of the Research Methods course. Its biggest attraction to developing countries would be the relative ease with which an adequate number of high quality research papers could be selected from the number published by local authors. A major area of challenge would lie in the selection of appropriate resource materials and in ensuring that they are not perceived by students as necessarily the "best".

A perennial source of frustration at Ibadan is the little or no evidence in students' projects that they had learnt any statistical analysis and presentation techniques. No chi-squared tests, no tests based on variance, no sampling ... One gets an occasional application of Spearman's Rank Correlation Coefficient, endless tables and very spotty attempts to use the SPSS. What is responsible for this undesirable situation? Our probing has revealed that it is partly a function of the inclination of the students' supervisors to use or not to use statistical techniques in their own research and writing. This phenomenon may, indeed, be the other side of the coin of the virtues of team teaching extolled earlier on in this paper. The most convincing explanatory variable, however, appears to be related to students' backgrounds. Most of them are simply apathetic to anything statistical, and having endured the fifteen hours of lectures on this aspect of the course, they promptly revert to their usual pattern of analysing and presenting evidence in words. I submit that an effective remedy to such an undesirable behavioural mould is urgently required.

Students' projects quite often deal with potentially useful topics that subsequent investigators might wish to explore further. It is partly for this reason that efforts have been intensified in recent years to make them more accessible

to the wider public outside the universities where they were presented. However, a casual examination of these projects soon reveals that many of the "findings" contained in them have to be carefully evaluated first before any attempt is made to build on them. The fact is that very few of the studies derive from populations large enough to support the "Conclusions and Recommendations" that students are often quick to make. Based entirely on my experience at Ibadan, I believe it is a sad reflection on the quality of these projects that no returning student for research degree work has ever considered pursuing further the topic he investigated for his Research Methods project. Moreover, the citations to these projects have almost exclusively been in students' subsequent projects —— so much so that we once seriously considered denying MLS students access to previous MLS projects! Surely, something can and must be done to make these projects worthy of the time and energies expended in producing them. And I know that the Ibadan situation is not an isolated one.

VIII. Proposals to IFLA

I shall resist the temptation to end this paper with the usual 'Conclusion' or 'Closing Remarks'. Instead, I would like to make certain proposals to IFLA which, in collaboration with other international bodies, have actively promoted the cause of harmonizing the information professions for many years. The three proposals presented here are a reflection of some twenty-odd years of my learning and teaching Research Methods, mainly in the Third World. It is certainly my hope that the main beneficiaries of IFLA's expected positive response to the proposals would be schools of library, archival and information studies in the Third World.

(1) That IFLA take a new, hard look at the international copyright conventions which tend to perpetuate the endemic book famine in most Third World countries.

The teaching of Research Methods cannot flourish in the suffocating climate of perennial shortages or non-availability of basic textbooks in most parts of the Third World. A doctoral dissertation made very strong pleas on the subject in the mid-1970's (Esezobor, 1975), but apparently not much attention was paid to it. Well, the cost of continuing to turn a deaf ear and a blind eye to the desperate pleas of Third World writers may yet prove too high, even for industrialized countries to ignore if the exhortation of a well-known columnist in Nigeria's most respected daily newspaper gains widespread support. Relevant excerpts from one of his publications (Jemie, Jan. 1987) are reproduced here to illustrate the point being made:

> The assignment is to supply useful books of all sorts to the Nigerian reading public, but particularly scientific, technical and scholarly books to all levels of the educational system, at affordable prices.
>
> My original aim was to call on our book pirates to unite for this important task of national development, but I am now convinced the job can be done by a single determined pirate ...
>
> ... all that is needed is one man or woman (or several, operating separately) with lots of guts, lots of cunning, and not that much cash to start with. What they need is to find the books in greatest demand, reprint them, and sell them. No permissions, no money down, no time to pay.
>
> If the original publishers of those books object, their objection should be discountenanced by the courts. Obviously they or their Nigerian representatives have been negligent of their duty to make their books available to the Nigerian public at reasonable prices.

> But in the final analysis, the ethics and performance of publishers and promoters of the arts in the capitalist world is beside the point. The central question is: how does an up and coming nation like Nigeria solve the problem of book scarcity? How have other nations solved it?
>
> To start with, we don't solve it by every incoming government declaring, just as in 1960 at independence, that "this government will honour all commitments by its predecessors, abide by all treaties and accept to pay all debts ..." The Copyright Convention is one treaty we should have broken. After all the USSR, a world power, refused to sign the Convention until recently in 1972. Before that they simply pirated whatever books they pleased from whatever foreign countries, republished them in their territory, and paid not a kobo in fees or royalties to anyone.
>
> If it is too late for Nigeria to do the same ... we could at least negotiate a blanket copyright treaty to enable us republish in Nigeria any foreign books we need. Fees payable under such a comprehensive treaty would be less than the conventional copyright fees, and publishing a Nigerian edition of any foreign book should be far cheaper than importing the book.
>
> If our government cannot negotiate such a treaty, our publishers alone or together can do so. If they don't the book pirates should simply take over and do their thing. If we can't have official piracy, let's have private piracy. The goal is the same: to provide particularly our higher educational system with the books they need. (Jemie, 1987: 7).

Lest we forget Nigeria, with an estimated population of 100 million, accounts for 25 percent and 49 percent of Sub-Saharan Africa's population and Gross Domestic Product respectively. (The World Bank, 1984). More pertinently, it has 24 universities, six of which have library schools——exactly half the number of library schools in the entire sub-continent. Need I say more about how seriously we must take opinions such as Jemie's?

(2) That IFLA commission the writing and publication of a standard textbook on Research Methods which potential graduate librarians taking the course can adopt as their basic textbook, especially those from Third World countries.

The case was made earlier on in this paper for an alternative approach to teaching Research Methods in our schools of library, archival and information studies. As a prerequisite to concrete action on our second proposal, IFLA may wish to commission a study of the most efficient and effective approach to teaching the course. A resumé of the major findings of such a study could well constitute an important annex to the textbook proposed here. The content and especially the examples in such a textbook would draw heavily on the writings and experiences of teachers of the information disciplines in the Third World. It is also hoped that the author(s) would be selected from the same area. The potential value and authority of such a book as well as IFLA's resource endowments to carry through such a project are certainly not in doubt.

(3) That IFLA actively promote the cause of research in the information disciplines as a vital instrument of development, starting with the Research Methods course.

The teaching or learning of Research Methods must be a means to an end, not an end in itself. The history of developed countries shows very clearly that Research and Development have always marched side-by-side to produce and sustain all of the three economic revolutions the world has seen — industrial, agrarian and technological. If indeed the industrialized world has entered the era of the 'information revolution' then research in the information disciplines, as we know them, has played a tangential role in the emergence of such a revolution. I submit that librarians and archivists, no less than information scientists, must no longer be content with playing second fiddle in the great and exciting challenges of research for development that pervades all disciplines

today. The library school's Research Methods course offers a vital opportunity of launching the crusade of 'Research for Development in the Information Disciplines'. IFLA, in collaboration with other international bodies, can contribute immensely to the success of such a crusade by giving it the much-needed impetus via the Research Methods route.

IX. References and Notes

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X. Annexes

The following annexes (A, B and C) represent the General Course Outline, the Statistical Analysis and Presentation component of the course, and the Grading Scheme respectively used for the Research Methods course at the Department of Library, Archival and Information Studies, University of Ibadan, during the 1986/87 session.

ANNEX A: Research Methods in Librarianship

A. Short Description

The 'Research Methods' course in postgraduate study; What is research? Characteristics of the 'scientific' method of enquiry and its application to librarianship; Types of research in librarianship; Guidelines for maximizing the research process; Facets of the hypothesis; Data-collection methods; Analysis of data, with particular emphasis on the statistical; Interpretation and presentation of findings; Important facets of the project work.

B. Objectives of the Course

To inculcate in students a clear understanding of what is and what is not research, and the ability to do a small piece of original study at the end of the course.

C. Course Outline

I Introduction (W.O.A.)

(1) The 'Research Methods' course in postgraduate study

(2) Some preliminaries:

- Objectives and components of the course
- Significance of self motivation
- Mode of project supervision
- Reading list

(3) What is research?

(4) Characteristics of the 'scientific' method of enquiry

(5) The application of (4) to the study of librarianship

(6) Types of research in librarianship

II The Research Process (W.O.A.)

(1) Identifying a researchable topic

27 (2) Statement of the objective(s) of research

(3) The complete research design

(4) Guidelines for maximizing the research process

III The Hypothesis (W.O.A.)

(1) What it is and how to state it

(2) How to find one (or several) for a study

(3) Methods of testing the truth of an hypothesis

IV Data-Collection Methods

(1) Observation surveys (BCN)

(2) Questionnaire surveys (BCN)

(3) Interview surveys (BCN)

(4) Sampling (see also V (4) below) (W.O.A.)

(5) Experimental research (GOA)

(6) Historical research (GOA)

(7) Operations research (WOA)

(8) Case studies (BCN)

(9) Action research (BCN)

(10) Hints on selecting the best methods for a study (WOA/BCN/GOA)

V Analysis, Interpretation and Presentation of Data

(1) Analysis - techniques and precautions (BCN)

(2) Interpretation - question of logical inferences (BCN)

(3) Presentation - components and their logical positions, clarity, precision and objectivity (BCN)

(4) Statistical analysis and presentation (WOA)

VI Important Facets of Project Work (WOA/BCN/GOA)

D. Methods of Instruction

Lectures and the supervision of projects

E. Method of Evaluation

Grading of project work

F. Reading List

(1) Aiyepẹku, W.O. From innovative practice to research. Seminar paper ... NIIA, 04 July 1986, 9pp.

(2) Goldhor, Herbert. An Introduction to Scientific Research in Librarianship. Urbana, Ill. Graduate School of Library Science, University of Illinois, 1972, 203pp.

(3) Kujọre, Obafẹmi. English Usage; some notable Nigerian variations. Ibadan, Evans Brothers, 1985. 118pp.

(4) Lynch, Mary J. (ed.). "Research in Librarianship". Library Trends, vol. 32, no. 4, Spring, 1984. (Only four chapters will be recommended).

(5) Moore, Nick. How to Do Research. London, The Library Association, 1983. 130pp.

(6) Simpson, I.S. Basic Statistics for Librarians. London, Clive Bingley, 1975. 113pp.

(7) University of Ibadan. Faculty of Education. Guidelines for Writing Theses, Dissertations and Projects in the Faulty ... Ibadan, 32pp.

Notes

(a) Nick Moore's How to Do Research is the basic text for the course.

(b) Supplementary course content and additional reading may be specified in V (4) above.

(c) WOA = Professor Aiyepẹku
BCN = Dr Nzotta
GOA = Dr Alẹgbẹleyẹ.

October 1986.

ANNEX B: Statistical Analysis and Presentation

A. Short Description

Uses and abuses of statistics in librarianship and information science; levels of measurement; tabular and graphical presentation of numerical data; features of frequency distributions; major statistical techniques: sampling, chi-squared test, tests based on variance, correlations, SPSS; evaluating the statistical component of the literature of librarianship and information science.

B. Objectives

The course has three broad objectives; to enable students (i) achieve a basic level of numeracy by learning the elementary statistical techniques and their application to librarianship and information science studies; (ii) understand and appraise the statistical component of the professional literature of librarianship and information science; and (iii) know when and how to seek the assistance of the statistician or the computer specialist in analysing librarianship and information science data.

C. Course Outline

1. Relevance and extent of statistical knowledge required in the study of librarianship and information science
2. Measurement and counting in statistics
3. Methods of presenting numerical data
4. Features of frequency distributions
5. Sampling
6. Chi-squared tests
7. Tests based on variance
8. Correlation coefficients
9. The SPSS as an example of a statistical package suitable for multivariate analyses in librarianship and information science
10. Notes on evaluating the statistical component of the professional literature of librarianship and information science.

D. Methods of Teaching

Lectures and assigned exercises.

E. Methods of Evaluation

Project Work attached to the course.

F. Reading List (in order of importance to the course)

(1) Simpson, I.S. Basic Statistics for Librarians London, Clive Bingley, 1975. 113pp.

(2) Adamu, S.O. and Tinukẹ L. Johnson. Statistics for Beginners. Ibadan, Onibọnoje Press, 1974. 286pp.

(3) Snedecor, George W. and William G. Cochran. "A Short Course in the Elements of Statistical Methods". In: Statistical Methods, 6th ed. 1967 (various pagings).

ANNEX C: Research Methods: Grading Scheme for Projects

I. Statement of Objective/Problem

(a) Motivation for/Background to the study

(b) Hypothesis formulation/Statement of the study's objectives.

II. Literature Review

(a) Relevance

(b) Adequacy

(c) Organization

III. Data Collection

(a) Appropriate technique(s)

(b) Comprehensiveness/Relevance

(c) Indication of sources used

IV. Analysis and Interpretation

(a) Originality of thought

(b) Logical inferences

(c) References to previous related work

(d) Good English

V. Presentation of Findings

(a) Clarity and general organization

(b) Appropriate illustrations

(c) Complete citations

(d) Informative abstract